Volume 32, Number 3

inps journal

Indiana Native Plant Society

Fall 2025

Native Plants and Me: the Path I Did Not See

By Wyatt Williams

After I realized that the microbiology lab I needed for medical school was at the same time as another class I had to take, I flipped absentmindedly through the class catalogue to see what other biology labs were offered. With the confidence that "a medical school somewhere will take my money and teach me how to be an eye doctor," I discovered one that sounded interesting and enrolled in L376, Biology of Birds.

Courtesy Bloomington Herald-Times

Wyatt, pictured here in 2016, served as the Park Naturalist at Spring Mill State Park.

The class was shockingly rigorous and involved extensive review of peer-reviewed literature. The labs, however, were fun and included exciting trips to southern Indiana's best birding locations. Dr. Susan Hengeveld introduced us to whooping cranes (*Grus americana*), short-eared owls (*Asio flammeus*), and countless other winged miracles. Without a concrete plan in place, I soon knew that my future would not involve becoming an eye doctor but would center around being outdoors. Following my ornithology class, I took entomology and botany labs with two other wonderful professors: Dr. Armin Moczek and Dr. Eric Knox, respectively.

At the end of my time at Indiana University, I timidly attended a career fair wearing a polyester suit from JCPenney. I had three printed resumes ready for biology-related jobs involving pharmaceuticals and lab testing, but thought that I could get the nerves out of my system by talking to a sweet little nonprofit called Dunes Learning Center (DLC) in Indiana Dunes National Park. It seemed prudent to talk comfortably about the DLC position before trying to sell myself to somebody offering a full-time position with healthcare and retirement benefits. Without real intentions to live in "the Region" or spend my days leading hikes for fourth graders, I learned that not only does DLC house and feed you, but you get a stipend of a whopping $350 every other week. I left one of my resumes with them and was delighted to have an interview with their exceptional education director Erin Crofton the following week. I accepted the internship and spent a year offering programs to kids on school field trips or summer camp. I was surprised to find myself enthralled learning about Cowles Bog and watching the difficult students become the most interested and involved kids on the hikes. The staff at DLC were incredibly supportive and allowed us to tailor our programs to our interests. Mine became increasingly plant-focused as I realized our weekly hikes sported a different palette of wildflowers every visit.

After this internship and knowing that I should probably look for a "real job," I was

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Courtesy W. Williams

Now more field savvy and employed with DNR Division of Nature Preserves, Wyatt uses the Flora of the Chicago Region *to learn about the flora of an oak savanna nature preserve in Jasper County, Indiana.*

excited to see that legendary naturalist Jim Eagleman was hiring at Brown County State Park. Following an interview that felt more like a conversation between two old friends, I found myself sitting nervously at a WWII-era green metal desk in my hand-me-down park naturalist uniform. Poring over the books in his nature library (and learning that all nature people have a penchant for using pretty rocks and hornet nests as decoration), I wasn't entirely sure what naturalists were supposed to do in between programs. Do we spend every moment interacting with visitors? Should I be preparing the next presentation? I was quietly reading a book about mammals when Jim popped his head in through the door and said "one of my old mentors said something to me that I'll never forget – time spent on the trail is never time wasted. I want you to hike every trail, meet every tree, put a name to every flower, learn what birds are singing in the canopy as you lead your group underneath." Not needing another invitation, I took my *Newcomb's Wildflower Guide* and walked down the trail behind the nature center. I remember spending hours preparing for a wildflower hike and fretting about whether it was Philadelphia fleabane (*Erigeron philadelphicus*) or daisy fleabane (*E. annuus*), and trying to come up with a good interpretive stop to explain the differences between Solomon's seal (*Polygonatum biflorum*) and false Solomon's seal (*Maianthemum racemosum*) and how they got their names. It was the first time I started to notice that some plants seem to be intrinsically tied to each other, like chestnut oak (*Quercus montana*), painted sedge (*Carex picta*), and greenbrier (*Smilax rotundifolia*). I thought to myself "why aren't those three plants, who define the Brown County hills, covering the rocky slopes of nearby Spring Mill State Park?"

Jim retired near the end of my season at Brown County State Park creating a vacuum in the world of State Park naturalists. After the dust settled and some people had shuffled parks, I was lucky enough to get a full-time position at my beloved Spring Mill State Park. I learned that naturalists don't only spend their days walking the trails and falling in love with their properties. Instead, they have to supervise seasonal naturalists, cave tour guides, invasive species technicians, 501(c)(3) Friends groups, and volunteers, all while providing field trip programs, organizing special events, and submitting reports. I spent a few years doing that at Spring Mill State Park and then McCormick's Creek State Park before making the jump into the DNR Division of Nature Preserves as a plant community ecologist.

Nature Preserves' southeast region ecologist Jason Larson used to make a couple visits to Spring Mill State Park each year during my tenure there. He would spray Japanese stiltgrass (*Microstegium vimineum*), pull garlic mustard (*Alliaria petiolata*), and seemed to know everything about the plants I asked him about. His insight into how plants, geology, topography, soil, and wildlife interacted were unparalleled. I might have known the names of the plants flowering along the trail, but he seemed to know about every aspect of them with an incredible depth. The same was true of Andrew Reuter when I worked with him at McCormick's Creek State Park and with Scott Namestnik when I first saw him present on the flora of Indiana.

When Roger Hedge retired from the DNR Division of Nature Preserves and his position came open, I jumped at the opportunity to apply. I now find myself knee deep in working with the native flora of Indiana. I am happy and proud of our work monitoring rare plants and plant communities across the state, a path that I did not see when I started an outdoor adventure with Indiana's birds, insects, and native plants.

Wyatt Williams is a member of the South Central Chapter of INPS.

Book Review:

A Kid's Guide to Plants of the Great Lakes Region

By Philippa Joly

Reviewed by Dr. Janet Canino

This book surprised me. Okay, maybe not surprising like you'd find at the end of *Where the Crawdads Sing* or in *Gone Girl*, but surprising in its own delightful way nonetheless. As an Indiana Master Naturalist (IMN) and an avid fan of our INPS Facebook group, nature-based books on local plants often act more as review material than as a source of novel information. And yet, Philippa Joly's, *A Kid's Guide to Plants of the Great Lakes Region*, left me with quite a few new nature tidbits to savor. For instance, I did not know Dandelion (*Taraxacum officinale*) sap is medicinal. (I won't spoil the fun by telling you what it helps treat. You'll have to read that one for yourself.)

So who should be reading this book? Well, this kid's guide is not just for kids. According to the author this guide is meant "for children, youth and adult" readers. Although the book includes "some technical language as a way of introducing the vocabulary of botany into our daily lives" as Joly says, "most of the book is written to be accessible and interesting to people of all ages" (pg. 193).

Accessible and user-friendly are definitely fitting adjectives to describe Joly's book. Several features make it easy to use: in addition to a handy glossary and the usual index for quick reference, the book also organizes content by season, which is a thoughtful touch for those who want to identify or explore plants in real time.

Keep in mind this is not a native plants-only book. That being said, Chapter 7 is all about "Invasive Plants," which shines light on why we might want to select an Indiana native plant versus a non-native one in our landscape. High praise to the author for including such important information!

Chapter 8, "Plant Profiles," makes up the bulk of the book. Many photos and drawings supplement the factual details shared about each plant. Sometimes there also will be an activity connected to a specific species. On page 31, for example, you'll find out how to make ink using the non-native and invasive Buckthorn shrub (*Rhamnus cathartica*).

Beyond plant identification, the book weaves in bits of regional and cultural history. Chapter 1 offers insights into the indigenous peoples of the Great Lakes region, while Chapter 2 describes the geographic area and what makes it unique. Chapter 3 explores "Plant Names and Language," including why the author chooses to capitalize plant names when that is not the typical convention. (Spoiler alert: it is to help foster connection and a relationship to the plants as individual living beings).

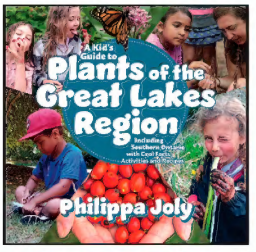
In Chapter 4 we find some helpful guidance on how to keep the plant populations safe while wildcrafting (which is a fancy way to say harvesting or picking of wild plants), while Chapter 6, "Poisonous Plants," focuses on how to keep *us* safe.

In Chapter 5, Joly introduces five key plant families to help readers build their plant identification skills: Aster, Carrot, Lily, Mint, and Rose. These families are revisited throughout the book, making it easier to recognize their members over time.

For me, *A Kid's Guide to Plants of the Great Lakes Region* gives off similar vibes to Robin Wall Kimmerer's classic and more in-depth book, *Braiding Sweetgrass*. Both books offer a holistic lens and deep respect for Indigenous perspectives in learning about native flora. Joly's book, though, offers an easily relatable guide on how to bring that broader framework into our own backyards. It also provides a valuable introduction to those who are new to caring about why we should want to get to know our botanical neighbors.

Overall, I found the book to be charming thanks to its lovely photos, helpful illustrations, student commentary, and personal anecdotes. I bet many of us in the INPS community can readily identify with Joly's story where she was down on her belly checking out the other-worldly looking Ghost Pipe (*Monotropa uniflora*), when before long she had several hikers passing by get down on the ground with her while she shared an impromptu lesson on this unusual parasitic plant (pg. 105).

But what makes this book a go-to recommendation for both teachers and parents is the activity suggestions. Many are low (or no) cost, simple, yet still engaging and educational. I could even see this as a useful resource in IMN classes. Chapter 9 offers specific



P. Rothrock

"It matters less where you get outside than that you are getting outside" as demonstrated by this mom and daughter in a local town park.

Guide — continued on page 5

Hairy Dogbane, a Canine's Perspective

By Barley Coopersmith

This week my pet, Karin, took me on a rather unexpected adventure. Usually we stick to roaming the neighborhood. She keeps me safe on a leash as I sniff-out messages on available trees and shrubs. Because the weather was remarkably pleasant, Karin and I ventured "off trail" (and without leash) into a really neat meadow that bordered a small stream. Everything seemed new to me, which made it hard for me to heed warnings. But, indeed, I did heed when Karin pointed out one plant in particular – dogbane!

P. Rothrock

The urn-shaped flowers of hairy dogbane (shown above) are rather small (3-6 mm) and greenish-white. Those of spreading dogbane are somewhat larger (5-9 mm) and have pink stripes. Inset: The tightly spaced stamens form a cone within the flower. Inside the cone is abundant nectar. Small nectar-thief insects sometimes snag their proboscis in the cone and perish.

Hearing the word "dogbane" (*Apocynum cannabinum*) made my ears perk-up. Even its formal name, *Apocynum*, means "dog away." I started by giving the large patch a good sniff. The odors were softly acrid, indicating the likelihood of bad chemicals inside. Karin looked up the details on her smartphone and said they were called glycosides and, in particular, cymarin and apocannoside. Apparently the leaves of dogbane are poisonous enough to kill a large dog like myself and even a horse or cow if a few mouthfuls are ingested. Thankfully, because the plants taste so bitter, they seldom get eaten except by some dumb sheep. Plus the poisons are mingled with a sticky, milky latex. I have no desire to trade yucky dogbane for the doggie treats that my pet freely gives me!

Later I discovered that another name for hairy dogbane is Indian-hemp. Given the connection with native Americans, I consulted my Carolina dog friend. She belongs to a breed that has lived with native Americans for many centuries. She told me that her people used the plant medicinally. They thought it good for rheumatism, as an emetic, and for venereal warts (yuck). In small doses it can rid a gut of parasitic worms. In recent years, scientists have studied dogbane's glycosides and found that they affect the heart, blood pressure, and even have anti-tumor activity. Wow, this potentially useful native "weed" is growing right under our noses. Why are humans so slow to learn?

My Carolina dog friend also pointed out that her people used the plant for fiber. Scientists celebrated that attribute by giving the species the name *A. cannabinum*, a connection to *Cannabis*, which ordinary people know as hemp. Dogbane stems and roots yield good, easily processed fibers for making bow strings, fishing nets, coarse cloth, and more.

But I digress. Returning to the meadow, once I completed my sniff-test of dogbane, I gave it a further visual examination. It was taller than me [about 60 cm] and had small, whitish flowers. The abundant nectar was attracting a wide variety of fluttering lepidopterans. The fruits were very curious — they looked like pairs of long, skinny beans. Some had started to split open, revealing several hundred seeds with white silky hairs that could easily buoy the seeds on a passing breeze.

As Karin and I continued our exploration, we ran into another plant that I initially thought might be more dogbane. The smell was reminiscent. The height and vegetation looked somewhat similar. But when I looked up at the flowers and fruits, I could immediately see big differences. It was common milkweed (*Asclepias syriaca*). The milkweed lacked red stems and its leaves were darker green

and less pointed. The flowers also were more colorful and strangely shaped and gave rise to fat, warty pods. Both milkweed and dogbane, it turns out, are in the same family (*Apocynaceae*) and both have bad chemicals and sticky latex.

At this point in our adventure, Karin decided we should find a comfy spot strategically located between a dogbane patch and a clump of milkweed. She is smart about little critters. First, she pointed out monarch butterflies (*Danaus plexippus*). Interestingly, one was laying eggs, but only on the milkweed plant. Their larvae are super fussy eaters like some cats that I know. Karin also pointed out that some dogbane plants near me had insect damage part way up the midrib on several leaves. Her books say that some plant-eating insects might use vein-cutting as a countermeasure that either disrupts the flow of latex or prevents glycosides from reaching areas near the tip of the leaf. That may be, but I am a big dog and find it hard to sustain an interest in tiny "bugs." Then too I quickly forget the names of insects, even though a bunch feed exclusively on dogbane [Karin's note – Barley had me look up some insect examples for you: hummingbird clearwing moth (*Hemaris diffinis*), wooly bear moth (*Ammalo tenera*), dogbane tiger moth (*Cycnia tenera*), and dogbane beetle (*Chrysochus auratus*)].

Digging strikes me as an excellent way to explore a meadow, searching out little animal holes and mouse trails. In this setting, though, I must report that the digging was frustrating. I kept encountering dogbane's extensive rhizomes and lateral roots that can reach out over three times my body length from the parent plant. I guess it could be a good plant to use for erosion control.

After some rolling on my back and a few belly rubs, Karin and I journeyed home, pleased with our meadow discoveries. When we got back home, I heard that there is a second species of dogbane in northern Indiana, spreading dogbane (*Apocynum androsaemifolium*). I am curious to see it and to hunt for hybrids between the two dogbane species. Please tell Karin that she needs to visit friends in Fort Wayne so that I can sniff them out!

Barley is a five-year old Bernese Mountain dog who resides in south central Indiana. He received his education at "Scout's Honor" puppy school in Bloomington Indiana.

Members of the dogbane family, which includes milkweeds, generate latex that is usually white. Latex serves as a feeding deterrent since it can glue shut an insect's mouthparts.

Guide —

continued from page 3

suggestions for how to use this book as an educational tool. One practical tip: ask more questions than you answer.

Perhaps most important of all, keep in mind Joly's reminder: "It matters less where you get outside than that you are getting outside" (pg. 191). No need for fancy forests or dedicated nature preserves. Just find a patch of green, and if you can include a tree, even better. But mostly, just get the kids – and yourself – outside and look more closely at what's in your own neighborhood. You're likely to find some surprises!

Reference

Joly, P. 2025. *A Kid's Guide to Plants of the Great Lakes Region*, Harbour Publishing, British Columbia, Canada.

Janet Canino, a co-founder of the Northeast Chapter of INPS and an Indiana Master Naturalist, can be found outside daily, usually with her Nikon camera in one hand and a leash in the other, trying unsuccessfully to wear out Maya, the nearly-inexhaustible Golden Retriever.

P. Rothrock

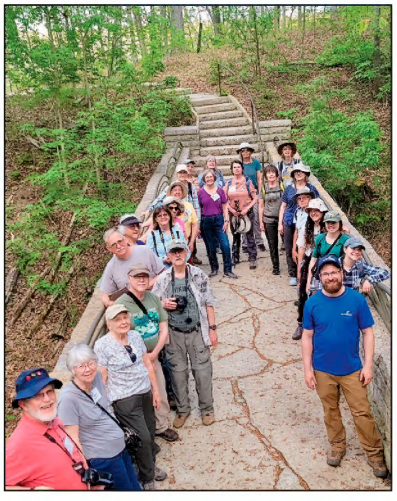
The follicle fruits of hairy dogbane come in distinctive pairs. The slender pods range from 10-20 cm long.

Spring Beauties 2025 Tour:
Preserves & Gardens of Southern Indiana & the Louisville Region

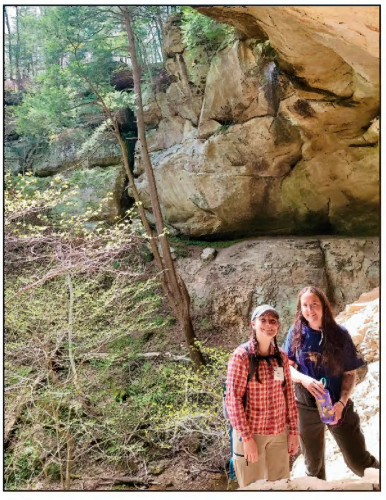
All photos by M. Zelonis

Ellen Jacquart, seen here with the group at Nine Penny Branch Nature Preserve, ably highlighted the spring ephemerals and ecological wonders of southern Indiana.

The most fun about Yew Dell Botanical Garden was the opportunity to marvel at the crop of native plants in their greenhouse and to make prized purchases.



The Moss Gibbs Woodland Garden offered the tour group 15 acres of varied spaces balanced between "intimacy and immensity."



Jolee Bisson and Kat Pain took a busmen's holiday from their environmental consulting work, but were refreshed by the glories of Hemlock Cliffs in Hoosier National Forest.

By Mark Zelonis

Southern Indiana and nearby north-central Kentucky was the destination for 27 members of INPS on the latest coach excursion. The tour, extending from April 21-24, was conducted at the peak of spring bloom this past April by Mark Zelonis of Cultural Excursions. While the beauty of spring might speak for itself, having an expert guide enriches the experience. And, who better than former INPS president, Ellen Jacquart, who shared her vast knowledge of the many plants growing in this region's dramatic cliffs, ravines, streams, and old-growth forests. In addition, Ruth Ann Ingraham, INPS historian and former president, welcomed the many veteran travelers as well as several members new to this fun and educational event.

Using the newly renovated Spring Mill Inn as a base, we visited numerous exciting properties of the Nature Conservancy, the Indiana State Park system, and the Indiana Department of Natural Resources – Division of Nature Preserves. Highlights were Calli and Nine Penny Branch Nature Preserves, Hemlock Cliffs in the Hoosier National Forest, as well as trails through Donaldson Woods at Spring Mill State Park.

Next, we dropped down into Kentucky for two days where we enjoyed a guided tour of the magnificent old trees at historic Cave Hill Cemetery. The excursion then touched a small fragment of the immense Bernheim Forest & Arboretum, discovered the exciting new Moss Gibbs Woodland Garden with its artistic touches, and lastly, toured the historic Yew Dell Botanical Gardens. The latter, a former commercial nursery, afforded tour members an opportunity to purchase dozens of vigorous native plants being grown on-site.

Mark Zelonis, a member of the INPS Central Chapter, has organized and led four INPS native plant tours.

*Firepink (*Silene virginica*) lights up the southern Indiana woods in April.*

Spring Beauties Florathon Team

By Ellen Jacquart

While most of our four-day trip (see article at left) was a relaxed saunter through bloom-covered hills and valleys, for a 24-hour period our group transformed into a hard-driving, flower-seeking task force to compete in a 2025 Florathon competition. While technically Florathon teams are supposed to have 2-6 team members, we decided it'd be fun to have all 27 of us compete (the more eyes you have looking, the more you find!). We started in Donaldson Woods and continued the search through Nine Penny Branch Nature Preserve and Hemlock Cliffs. It was amazing to see everyone get in the spirit and try to find species we didn't already have listed. Some of the highlights of our search – Tom Hohman finding a flowering yellow ladies' slipper (*Cypripedium parviflorum*) in Donaldson's Woods, Gail Wiseman finding American cancer-root *(Conopholis americana)* in Hemlock Cliffs, and finding a single Solomon's plume (*Maianthemum racemosum*) with open flowers at Nine Penny Branch Nature Preserve. It was a great way to really focus our attention on native plants. We ended up with 51 flowering native species in our 24-hour search, a respectable total and more than I would have ever seen on my own.

Gail Wiseman finding American cancer-root in Hemlock Cliffs. The other "Florathoners" pictured include Beth Van Tassel and Nancy Snively along with notetaker Ellen Jacquart.

M. Zelonis

*Donaldson Woods has 67 acres of undisturbed old-growth forest. Here one can see the dark bark of a towering tulip tree (*Liriodendron tulipifera*) contrasting with the pale bark of American beech (*Fagus grandifolia*).*

Journey Indiana: The Legacy of Charles C. Deam

The first episode of the 2025 season of Journey Indiana featured a well-done overview of the legacy of Charles C. Deam, the author of the groundbreaking *Flora of Indiana*. In the video, Paul Rothrock, Associate Curator Emeritus of the Indiana University Herbarium, provides insights into Deam's life and work. Deam, a colorful, type A personality, lived his love of native plants. His motto – "Botany is my game and I play it hard!" – is reflected in the over 50,000 specimens deposited in the IU Herbarium. His collection forms the backbone of our knowledge of Indiana flora and the digital herbarium (on *midwestherbaria.org*) that makes his work easily accessible to all. To see the 5 minute video go to either the IU Herbarium website (*https://biology.indiana.edu/research/facilities-resources/herbarium.html*) or YouTube (*https://youtu.be/Gtd_PichU4Q?si=EYawodkzZtEEAB6B*).

courtesy Journey Indiana

@indiananativeplants.org

Mission

To promote the appreciation, preservation, scientific study, and use of plants native to Indiana.

To teach people about their beauty, diversity, and importance to our environment.

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INPS JOURNAL is published quarterly for members of the Indiana Native Plant Society. Material may be reprinted with permission of the editors. Past issues of *INPS Journal* can be found at *www.biodiversitylibrary.org*.

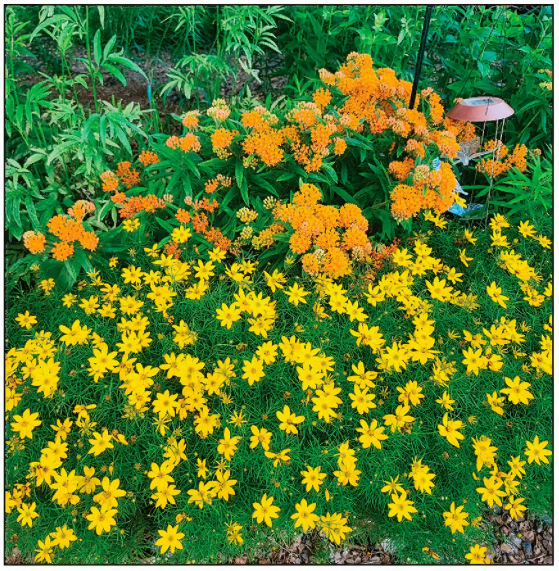
Submissions: Anyone may submit articles, photos and news items. Acceptance is at the discretion of the editors. Submit text and photos (300 ppi) via email to *journal@indiananativeplants.org*. Query for writer's guidelines. Deadlines: Jan. 1 issue – Oct 22; April 1 issue – Jan. 22; July 1 issue – April 22; Oct. 1 issue – July 22.

Membership: INPS is a not-for-profit 501(c)(3) organization open to the public. Join at *www.indiananativeplants.org*.

Share online: Send information for posting to *webmaster@indiananativeplants.org*.

INPS Chapter Activity

The INPS Central Chapter had an active summer. It included participation in a Garden Tour with three other regional organizations. One stop was Bobby Kimball's Westfield home. Her 75 visitors got to see how you can have a more ecologically sensitive landscape and satisfy the constraints of a Homeowners Association (HOA). Bobby's front yard includes a bed filled with exuberant whorled coreopsis (*Coreopsis verticillata*) and butterfly milkweed (*Asclepias tuberosa*). Bobby also loves to show off her side yard hedge composed of common milkweed (*Asclepias syriaca*) and dogbane (*Apocynum cannabinum*).



Claire Lane

In addition to a summer field trip to Wolf Park in Battle Ground, Indiana, the INPS Central Chapter sponsored a native seed packing session at Holliday Park. In the foreground Cheryl Hedrick and new member Emily Schoenbaechler engage in the fun and contagious conversation!

Claire Lane

Let's Make Butterfly Milkweed the State Flower!

By Tom Hohman

Do you cringe every time someone mentions that the Indiana State Flower is the peony (*Paeonia* sp.)? Do you wonder why we still have a state flower with no true natural or historical connection to Indiana, when 38 other states have awarded this honor to flowers native to their state (Wikipedia 2024)? Do you wonder why Indiana Native Plant Society (INPS) doesn't try to change this?

Mia Ryan

Out of 531 votes cast for State Flower candidates, butterfly milkweed won 199 or 37% of the votes. The next nearest candidate, wild columbine, received 120 or 23% of the votes.

Actually, we have tried to change it. A search of past issues of our Indiana Native Plant and Wildflower Society (as it was called then) newsletter provides the story. In the 2001 legislative session a bill was introduced to designate the fire pink (*Silene virginica*) as the official state flower. This bill was the result of a lengthy and well-organized effort spearheaded by Bill McKnight and the Indiana Academy of Science (IAS), with the support of INPS, that began in 1996. A committee of IAS developed a short list of 13 potential candidates for state flower. The candidates, along with a poster and description of each one, were submitted to all fourth-grade school classes in Indiana to vote for the one they thought should be the Indiana State Flower. The winner of the vote was the fire pink.

This resulted in the bill that was introduced in the 2001 legislative session. Unfortunately, support for retaining the peony was strong, and the bill did not receive a hearing.

Similar to the approach used by IAS in 1996, early this year INPS first recruited a committee of its members from throughout the state, and also solicited input from other conservation organizations. The committee evaluated candidates for a new State Flower, not just on their beauty, but also on how well they might represent the state of Indiana. Certain criteria were established to accomplish this.

1. The species must be native to Indiana.
2. The species must have statewide distribution, although it did not need to be evenly divided throughout the state.
3. The species must, at least to some extent, be available in the nursery trade, and capable of being grown in home gardens.
4. The species must not have another state's name or another geographic region as part of the common name. (Examples: Virginia bluebell or New England aster).
5. Species eligible for consideration could include shrubs and small trees. (Several were considered by the committee, but none made the final short list.)

The committee discovered a lot of good candidates for the honor of State Flower. With difficulty, the committee shortened the list to five native plants. The big difference this time is that the short list was then submitted to all INPS members for a vote. This path, rather than selection by schoolchildren, was chosen to ensure that whichever flower was selected would have widespread support from our members. The five plants on the short list were butterfly milkweed (*Asclepias tuberosa*), mayapple (*Podophyllum peltatum*), wild columbine (*Aquilegia canadensis*), wild geranium (*Geranium maculatum*), and woodland phlox (*Phlox divaricata*). As all of you know if you have been reading your emails from INPS, butterfly milkweed was the final selection.

Butterfly milkweed is a great candidate to replace the peony. In addition to meeting the criteria established, it is a larval host plant for the monarch butterfly (*Danaus plexippus*), as well as the queen butterfly (*Danaus gilippus*), and milkweed tussock moth (*Euchaetes egle*) (Holm 2014). Many species of pollinators visit its vibrant orange flowers during the summer bloom period. As an occasional frequenter of highway roadsides it is a highly visible representative of our Hoosier state.

Where do we go from here?

We learned in 2001 that selection of a candidate to replace the peony is not just one part of the task, it may be the easiest part. Guiding this change through the legislature will be difficult. While the peony is not native to Indiana, it is still a very popular plant. Nurseries will be reluctant to lose the designation as a marketing tool for sales of the peony, which is why availability in the nursery trade was a factor in the selection process.

In addition, the Town of Noblesville will lose some of the justification for their annual Peony Festival.

Many bills are filed each year that do not even receive a committee hearing, in part due to the sheer volume of bills introduced. This is where we need the support of all INPS members, as well as that of our conservation and gardening partners.

We are in the process of organizing a broad coalition of organizations to support the initiative. Most legislators will not have strong feelings on the legislation, and some may not even feel it is worth taking up legislative time. INPS has a broad membership base statewide, and active partner organizations will expand this base further. The success of the initiative will depend in large part on our efforts as members to let our legislators know that this is important legislation, that it is important as a symbol, and that the citizens of Indiana value their natural heritage.

We will keep you updated on the progress of the bill.

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Tom Hohman, a member of the INPS Central Chapter and past president, chairs the State Flower special committee. The committee also includes Mary Blackburn, Lois Gray, Gillian Harris, Roger Hedge, Mike Homoya, Ann Niednagal, Brenten Reust, Greg Shaner, Kevin Tungesvick, and Fred Wooley; Scott Namestnik assisted the committee in an advisory, non-voting capacity.

History of the Indiana State Flower

Plentiful is Nature's manna
Golden corn of Indiana,
O good and fair and great
We hail our own loved state.
CORN
INDIANA STATE FLOWER
STATE CAPITOL, INDIANAPOLIS, INDIANA

Courtesy Tom Hohman

Despite the existence of old postcards, circa 1910, showing corn (*Zea mays*) as the state flower of Indiana, resource searches have been unable to find verification that it was ever officially designated as the state flower. The first official state flower was the carnation (*Dianthus caryophyllus*), adopted by concurrent resolution of both houses of the state legislature in 1913. The reign of the carnation did not last long, as the flower of the tulip tree (*Liriodendron tulipifera*) officially replaced it in 1923, this time by state law. Apparently, Charles Deam was active in advocating for the tulip tree, but bemoaned the change that would come a few years later.

This change occurred in 1931, with the designation of the zinnia (*Zinnia* sp.) as the Indiana state flower. At the same time, the tulip tree was designated as the official state tree of Indiana. It is unknown if the desire to designate a state tree created an opening for the zinnia, or if the state tree designation was a way to move the tulip tree aside to make room for the zinnia.

The zinnia apparently fell out of favor in 1957, when the legislature again took up the issue. A bill changing the state flower was initiated in the Senate, with the dogwood slated to receive the honor. However, the House had other ideas, substituting the peony (*Paeonia* sp.) when they had their crack at the bill. They were apparently swayed in this move by one of their own, Rep. Lawrence D. Baker, who was a well-known commercial peony grower in the state. The Senate went along with the change, and we have been stuck with it ever since.

2025 INPS Annual Conference

Mark your calendars: Friday and Saturday October 24 & 25, 2025 at Grand Wayne Center, Fort Wayne, Indiana.

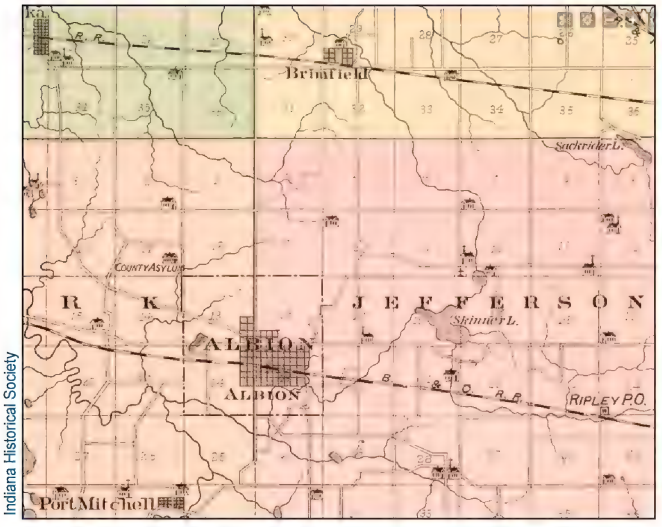
Saturday Keynote Speakers: Larry Weaner, New Directions in American Landscape – Integrating Ecological Restoration Techniques and Landscape Design. Roy Diblik, Coming to Know Plants: Understanding Plant Relationships in the Garden.

Plus: Chris Helzer, Zuri Carter, Justin Thomas, Louise Weber and Friday hiking opportunities.
For more information go to *https://indiananativeplants.org/inps-sponsored-events/annual-conference/*

William Bramwell Van Gorder –

By Lee Casebere

The Northern Lakes Natural Region encompasses over 10 counties in the northeastern part of Indiana. As its name implies it has numerous natural lakes of glacial origin. And, although not mountainous, the surface topography is complex, including glacial knobs, kames, and eskers with coarse soil, meltwater channels, and outwash plains. The plant communities range from moist to dry forests, swamps, marshes, bogs, and fens. It should not be a surprise that the area, with almost 1100 plant species, has received much attention for its botanical wonders. It was among the counties often visited by Charles Deam in the early 20th century. Deam was preceded, however, by the pioneering explorations of William Bramwell Van Gorder some 30 years earlier.



Indiana Historical Society

During the time that Van Gorder resided in Albion, as demonstrated by this map from 1876, the town's connection to the outside world was through the east-west B&O railroad. The alternative was a network of poor-quality county roads and travel by muscle power.

The story of how I became familiar with Van Gorder's scientific work hints at his lasting influence on conservation in Indiana. In 1972, as a new biology graduate from the University of St. Francis, I was trying to figure out my career direction. I pursued activities related to my natural history interests, along with my best friend, Mark Weldon. Together we took an interest in the Northern Lakes region on the "doorstep" of Fort Wayne where we resided.

We initially focused on the Pigeon River Fish & Wildlife Area in LaGrange and Steuben counties. At a meeting held in Pokagon State Park, we met Division of Nature Preserves (DNP) director Bill Barnes and told him about our interests. This began an on-going "conversation" between us and DNP that ultimately led to getting to know John Bacone in 1977.

John, as the new assistant director, was fresh from the Illinois Natural Area project and was eager to apply its methodologies to search for significant, previously unknown natural areas in Indiana. He discovered letters and species lists in the DNP files from me to Bill Barnes, was duly impressed, and reached out to meet Mark and me. After a while, he asked if we might help with natural area inventory work in Noble County, to which we enthusiastically said yes. Essentially it was volunteer work since the money barely covered gas expenses. It was well worth it for me, since it demonstrated my skills and helped me get a job with DNP in 1980 where I worked until my retirement in 2013.

During the early stages of the Noble County inventory project, we were provided with reference materials to familiarize us with what was already known about the geology, plants, and animals of the county. Extremely noteworthy among these materials was a copy of the Catalogue of the Flora of Noble County, Indiana by W.B. Van Gorder (1885). This publication was my introduction to one of Indiana's lesser-known but significant early botanists, one I have come to greatly admire.

Van Gorder was born in Noble County in 1855 and grew up on his parents' farm east of Avilla not far from the DeKalb County line. He became a teacher and taught in schools in Avilla and Rome City. He was thirty years old when his 1885 Flora was published. It may well have been somewhat of a self-published effort since the publisher was The Standard Steam Book and Job Office of Kendallville, Indiana, not a standard publisher of science and natural history related endeavors of that period. Van Gorder was identified on the cover as being the principal of the Rome City School. Later, he expanded his school administration credentials by becoming superintendent of schools in Albion. All the while, he continued his Noble County botanical studies, and an updated version of his flora was published in 1894, but this time in an official state publication (Van Gorder 1894).

He left Noble County during the period

An Early Indiana Botanist (Part 1)

of 1895 to 1915 to further his school administration career, first in Knightstown (Henry County) and then in Worthington (Greene County). When he and his wife Jeanette and daughter Esther moved back to Noble County, William served in Albion as the superintendent of schools. He died in 1927 and is buried in the Avilla City Cemetery near his parents, his wife, and his daughter.

His interests and discoveries in the botany of Noble County will be the focus of part 2 of this biography. It is noteworthy, though, that Van Gorder was interested in natural history broadly, including geology and birds. He published a paper on the "Geology of Greene County" (Van Gorder 1916) near the end of his time in that county. He made significant personal observations that contributed to our understanding of the glacial history of Indiana.

Dryer (1894) reports: "During the boring for gas at Albion a very accurate and complete record was kept by Prof. W.B. Van Gorder .... [noteworthy] was the occurrence of 15 feet of *red* bowlder clay at a depth of 345 feet, its surface 30 feet above the bedrock. [This] indicates a period of oxidation due to exposure to air and rain-water. It seems probable that these oxidized strata ... may form the upper member of 'the older drift,' a sheet deposited during a previous glacial period." Thus, the strata recorded in Van Gorder's dataset contributed to the astonishing realization that the area had been subjected to more than one episode of glacial expansion.

Regarding birds, he kept various records related to them for some forty years. After his death, Van Gorder's daughter sent many of his bird records to Sidney Esten and asked that they be utilized to the best advantage. Esten was well-known in Indiana natural resources and conservation circles, especially regarding birds, given his employment with the naturalist services of the Indiana Department of Conservation and his active involvement with Indiana Audubon Society.

Esten twice published papers using Van Gorder's bird records – "Bird Weights of 52 Species of Birds (Taken from Notes of Wm. Van Gorder)" and "Birds of Greene and Noble Counties (From William Van Gorder Notes)" (Esten 1931a,b). According to Esten, Van Gorder's notes included many pages of manuscript on "Birds of Northern Indiana" that sadly was never completed.

Part 2 of this Van Gorder biography will take a deeper look into what his two Flora's of Noble County say about the plants and habitats of that county both then and now. It will include some of my thoughts regarding the destruction of irreplaceable natural communities and species.

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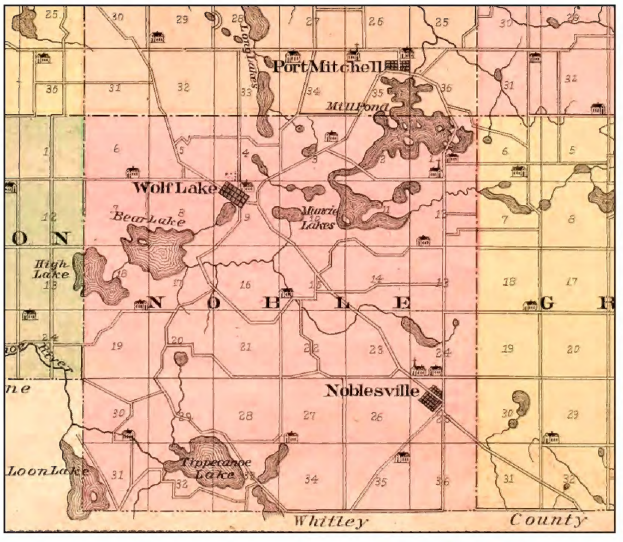


Indiana Historical Society

Noble County was an excellent focus for the botanical work by Van Gorder. In addition to fine hardwood forests, it provided many glacial lakes (as seen in this portion of southern Noble County), bogs, and fens for his explorations.

Lee Casebere, a member of the Central Chapter of INPS, is a naturalist, ecologist, nature photographer, and retired assistant director of IDNR's Division of Nature Preserves.

What's in a Name? Or What Happened to the Squaw-root?

American cancer-root serves as an appropriate common name for Conopholis americana. *This species lacks chlorophyll and photosynthesis. Instead it taps into the root systems of oak trees for its nourishment.*

P. Rothrock

*Cancer-root, also known as bear-corn, is sought after by forest mammals, especially white-tail deer (*Odocoileus virginianus*), when it reaches its fruiting stage.*

By Paul Rothrock

I live in a US city in which American English was not the childhood language for 40% of its residents. Given this multilingual reality, I found it appealing to participate in an English conversation group over the past several years. I, and 4-5 others, serve as the knowledgeable native speakers manning small tables in the local mall. Each Tuesday each of us sits down with 3 or 4 students seeking to refine their ability to speak our challenging language. It is totally fun to meet so many amazing people wanting to learn and to fit in.

As a result of these sessions, I have become sensitized to words and find myself compiling a list of homonyms and word puzzles or thinking about the nuance of meanings. I come up with strange phrases such as "peering over the pier at my peers" or wondering why the Polish are not referred to as polish. In the end, this reckoning with language is wrecking my life!

Of course, we as a nation continue to struggle with language. Word choices have the power to include or exclude, to show kindness or belittle. Is there any group of people that deserves the moniker vermin? Should sports teams have names that are insulting to their fans? Conversely can being politically correct go too far?

It should not be surprising that native plants are not out of bounds to language conundrums. Common names may contain derogatory, racist, or sexist words. A minor one – should we continue to use Indian in common names of plants? Should Indian cucumber root (*Medeola virginiana*) be simply cucumber root? And what about Indian tobacco (*Lobelia inflata*)? Is calling this species pukeweed an improvement or not? In this case, I do not see a ground swell of opinion in favor of deleting Indian from common names.

In studying the lexicon of plant common names, there seems to be one reference that does require correction. The word "squaw" may have begun life as a neutral, acceptable term, but it has not remained so. It gained particular attention in November 2021 when then Secretary of Interior Deb Haaland determined it to be derogatory and racist, an ethnic and sexual slur. As a result, the term has been avoided at the level of our Federal government. Because of the growing awareness of the offensive nature of the word, Squaw Valley Ski Resort recently was reenvisioned as Palisades Tahoe.

In the Midwest we have native plant species whose common names might include the word squaw. By referring to an older botanical reference I found these examples – squaw-bush (*Rhus aromatica*), squaw-huckleberry (*Vaccinium stamineum*), squaw-root (*Conopholis americana* and *Trillium erectum*), squaw-vine (*Mitchella repens*), and squaw-weed (*Packera obovata* and *P. aurea*). Of this list, the common name in most widespread usage, and the one I shall miss, is squaw-root (*Conopholis americana*), a species that is particularly frequent in south central Indiana's oak-woodlands.

Each of the above common names has a suitable alternative. Here are those used by *midwestherbaria.org*.

Conopholis americana = American cancer-root
Mitchella repens = partridge-berry
Packera aurea = golden groundsel
P. obovata = round-leaf groundsel
Rhus aromatica = fragrant sumac
Trillium erectum = stinking-Benjamin
Vaccinium stamineum = deerberry

Since common names do not require any permission to be updated, it is up to us to make these changes, and, in this case, to show respect for our neighbors. Of course, as a botanical snob, I recommend skipping common names altogether and making the effort to learn the latinized scientific names for plants. (I know … not likely.)

Paul Rothrock resides for much of the year in Bellevue, Washington, but remains rooted in the South Central Chapter of INPS.

Labels — continued from back page

a wrench into the complex inner workings of our native ecosystems can have unexpected consequences. Indiana has an Invasive Species Council that assesses and ranks invasive species in the state, which you can find online at *https://ag.purdue.edu/department/entm/iisc/invasive-plants.html*. This list demonstrates that not all invasive plants have demonstrated the same level of harm to Indiana habitats, but it can also leave out some species simply because we don't have enough data on them yet.

What about other well-known plants that cause harm, like poison ivy (*Toxicodendron radicans*)? While some humans certainly dislike this plant, poison ivy is native in Indiana and benefits the many insects that feed on the vegetation and the wildlife that eat the drupe fruits, nest in the vines, and have no reaction to the oils that cause humans such problems. While you may decide to rid your backyard of poison ivy, it is a native plant and is not considered invasive.

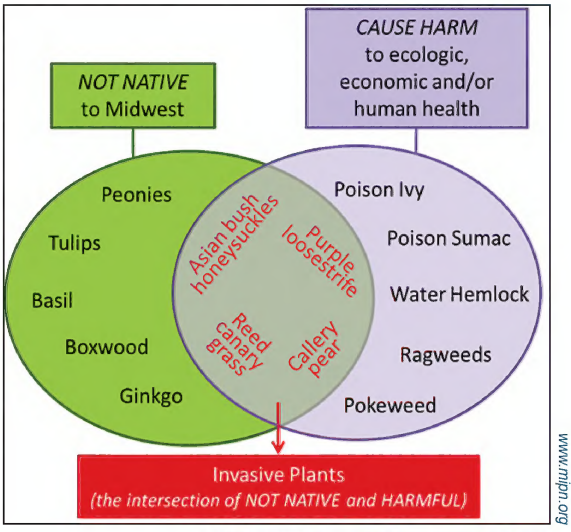
Weed: A weed is simply any plant growing where it is unwanted. This label is often used for native or nonnative plants that spread aggressively, particularly outside of natural areas in farm fields, lawns, gardens, and roadsides. There are some "official" weeds listed on federal, state, or local noxious weed lists, which can include native, nonnative, and invasive plants. Indiana has 13 plants on the statewide Noxious Weed List, and counties and townships can fine landowners who don't control them. This list, now rather outdated, includes 3 invasive species (Canada thistle (*Cirsium arvense*), Johnson grass (*Sorghum halepense*), and poison hemlock (*Conium maculatum*)) as well as 2 native species (bur cucumber (*Sicyos angulatus*) and marestail (*Conyza canadensis*)). For more info, go to *https://www.duboisswcd.org/noxious-weeds.html*.

While all invasive plants should be considered weeds, not all weeds are invasive. And there lies the problem. Invasives are very destructive and take a lot of time and money to control. Every time the label "invasive" is given to an unwanted or weedy plant, the term starts to lose its impact. Gardeners may say a particular weed is "invasive to them," but we have an official process for evaluating invasives, and don't want the term to be used lightly. If someone has the next kudzu in their yard, we want them to take it seriously!

Towards this end, here are a few unofficial terms I use. For nonnative weeds that are not invasive, I simply call them "weeds" or perhaps "lawn weeds" or "agricultural weeds." For native plants in these same settings, like marestail, I use "weedy native." Some of our native plants are not weedy, but still spread too much in landscaped areas, so plants like trumpet creeper (*Campsis radicans*) are "aggressive natives." Sometimes native gardeners will plant something that is just outside of its native range in Indiana, such as bald-cypress (*Taxodium distichum*) that are only native to a small corner of southwest Indiana. These plants are still better options than planting something native to Europe, so I like to call them "native-ish." If we are concerned that a nonnative plant such as rose-of-Sharon (*Hibiscus syriacus*) will become invasive, but we don't have enough data yet, I use the term "potential invasive" or "a nonnative plant to watch." Similarly, nonnative plants such as great mullein (*Verbascum thapsus*) that are usually just weedy, but more problematic in specific native habitats, can be described as "invasive in some habitats." And plants can certainly change categories over time as we learn more through research and reporting.

In summary, let's stop using the term invasive for every weed! And if you're not sure, just ask. Our native plant society is full of experts that would love to discuss whether a plant is invasive, and what control, if any, might be needed.

Emily Finch, a member of the Southwest Chapter of INPS, serves as the Invasive Species Specialist for the Martin, Daviess, and Orange County SWCDs and on the board of the Midwest Invasive Plant Network.



This graphic from the Midwest Invasive Plant Network illustrates how invasive plants must be both nonnative and cause harm.

www.mipn.org

Dendroica cerulea, CC BY-NC-SA 2.0

*While poison ivy is often considered a weed, it is a native plant, not invasive, and is enjoyed by birds like this white-throated sparrow (*Zonotrichia albicollis*).*

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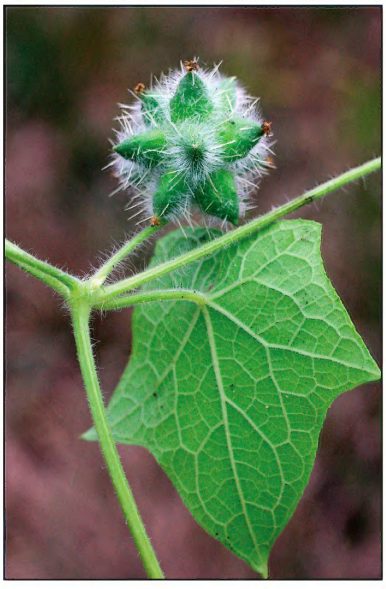
What's in a Name? The Labels We Give Plants Matter



P. Rothrock

The native vine, bur cucumber, has the legal status of noxious weed. Deam's 1940 Flora *notes that the species is "abundant in cornfields in the Lower Wabash Bottoms where it is regarded as one of the most objectionable of all weeds because the spines of the fruit stick through clothing, and in husking corn the hands of workmen are injured."*

By Emily Finch

"That plant is so invasive!" When someone says this about a plant, does it conjure images of kudzu (*Pueraria montana*) covering trees and killing them and anything else in their way? Or do you think of something annoying, like a weed in your lawn that you just can't get rid of? While more people are aware of invasive species than ever before, the terminology can get muddled. As one of the moderators on the INPS Facebook group, I see this firsthand and decided to take a stab at defining some official, and unofficial, terms.

Native Plant: A native plant is one that has existed in a certain area for a long time, sufficient to form complex ecological relationships with other native flora and fauna. The INPS defines them as plant species that occurred in natural communities within our state boundaries prior to European contact, essentially those plants that were here before the 17th century. An excellent resource for seeing the geographic range of native or nonnative plants is the Biota of North America Program (BONAP). Their website (*https://bonap.net/tdc*) supports distribution maps for each non-cultivated species known for the US, but make sure to check the map color key closely. Plants that are native to some parts of the US, but nonnative/adventive in other areas, have a different color designation than other exotic plants.

Nonnative Plant: Essentially, any plant that does not meet the definition of a native plant is considered nonnative. That can include plants from other countries, other continents, or even plants from other parts of the US that did not migrate into Indiana naturally. Nonnative covers a lot of plants, and doesn't necessarily mean a plant is bad or a threat to our native plant communities. After all, most of our agricultural system relies on nonnative plants.

Some people use the term "naturalized" for a nonnative plant growing outside of cultivation. I personally dislike this term because most people have a positive connotation with the root of the word, "natural." Being naturalized is neither positive nor negative, but neutral.

But when does a plant outside of its range cross the line from just nonnative to invasive?

Invasive Species: The federal government defines an invasive species as a nonnative species whose introduction causes, or is likely to cause, economic or environmental harm or harm to human health. So, a plant must be BOTH nonnative to the area under consideration, AND cause harm. Most often invasives harm native ecosystems by overwhelming and disrupting them. They can also cause economic harm by damaging infrastructure, and some have health related harms that cause contact rashes and even poisonings. As research continues, we seem to find new harms from invasives every day, such as invasive shrubs causing higher numbers of disease-carrying ticks – proof that throwing

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